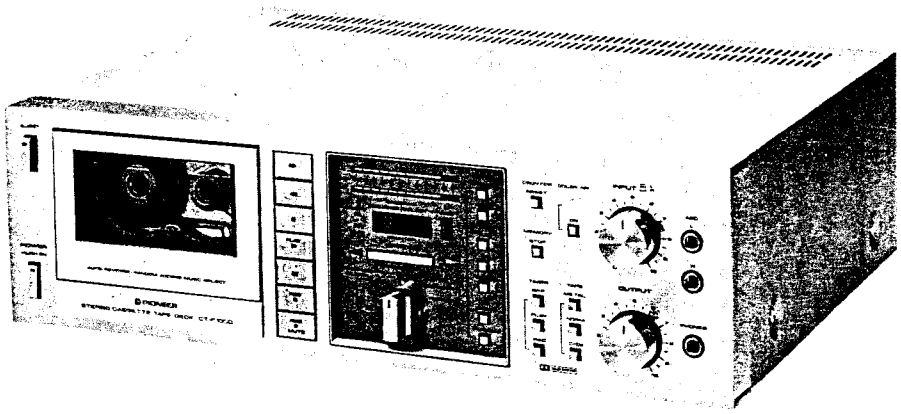
Operating Instructions

Auto-reverse/Random access music select
STEREO CASSETTE TAPE DECK

CT-F1050



IMPORTANT NOTICE

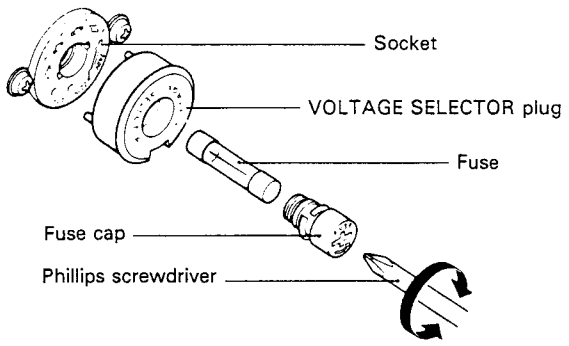
CT-F1050 is designed to operate from 120 V, 220 V or 240 V mains. Before turning on the power, please confirm that the line voltage setting indicated on the rear of your unit corresponds to the supply voltage in your area: if not, change the setting as described in VOLTAGE AND FUSING VARIATIONS on page 2.

PIONEER

VOLTAGE AND FUSING VARIATIONS

You will find the line voltage selector switch on rear panel. This switch has positions for 120 V, 220 V and 240 V power sources.
Before your cassette tape deck is shipped from the factory, the switch is set to the power requirements of the destination; nevertheless, you should check that it is set properly before plugging the power cord into the outlet. If the voltage is not properly set or if you move to an area where the voltage requirements differ, adjust the selector switch as follows. Before adjusting, disconnect the power cord.

1. Unscrew the fuse cap with a Phillips screwdriver, then take out the fuse and plug.
2. Re-install the plug with its cutaway section exposing the correct voltage indication as shown in the illustration below.
3. Refer to the table and install a replacement fuse (provided as an accessory).
4. Insert the fuse in the fuse cap, then fit the cap to the plug and tighten.



Table

Voltage	Fuse
120 V	1.5 A
220 V, 240 V	800 mA

INSTALLATION PRECAUTIONS

To ensure the best sound quality and trouble-free operation, avoid setting up the tape deck in any of the locations described below.

Location liable to downgrade performance and result in breakdowns	Resulting trouble
1. Locations exposed to direct sunlight, or near heaters or other heat sources.	1. External heat causes the performance of the circuit parts to deteriorate, and operation becomes unstable.
2. Locations with poor ventilation, with high humidity or moisture contents, or dusty locations.	2. Cause of faulty contact in input/output plugs, and rust. High humidity and high moisture contents cause deterioration in insulation. There is also the danger of current leakage and heat generation in the circuit parts. Dust or grease in the rotating parts causes the parts to deteriorate.
3. Locations susceptible to vibration.	3. These locations affect the precision parts adversely.
4. Locations where are thinners, benzine and other types of volatile liquids, insect sprays or any kind of inflammable objects at hand.	4. These help to corrode the front panel. In particular, the heads are precision-finished to micron dimensions. Chemicals may reduce their performance, so exercise all due care.
5. Do not install the tape deck in the vicinity of the tuner. Also, do not install it directly on top of the stereo amplifier.	5. During AM reception, this is a cause of interference and hum noise generation.

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FEATURES

Auto reverse, auto repeat functions

This deck adopts an auto reverse and auto repeat mechanism employing infrared rays and photo transistor to reverse the direction of the tape at tape-end. There is thus no need to turn the tape round — you can perform repeat recording and playback without lifting a finger. This means that long program sources can be taped efficiently. The auto repeat function allows the tape to be played back repeatedly.

The direction selector can be used to reverse the tape direction at any time while the tape is moving.

Random access music select system

This deck comes with a random access music select system that allows the sequence of the programs on a pre-recorded tape to be re-played automatically just as desired. When the orders for the sequence of the programs to be heard are given to the built-in microcomputer, up to a maximum of 20 programs are automatically searched, and playback begins. A repeat function repeats playback in the instructed sequence.

PMS system for searching programs on pre-recorded tapes

This deck's PMS (Pioneer Music Select) system automatically detects the unrecorded blanks between the programs and locates the start of the program for playback. During playback, the program can be repeated or the program being heard can be skipped for listening to the next program. This is a handy function for repeatedly listening to your favorite music and for remembering songs.

Hyperbolic sendust head

Recording/playback head uses a sendust core which features outstanding wear resistance and low distortion with high input signals. This head has many features, not the least of which are the excellent contact with the tape and the minimal adhesion of dust particles and noise generated by magnetization. It is capable of doing full justice to the performance not only of metal tapes but also of other high-performance tapes, and it yields a well-balanced sound quality by combining a virtually distortion-free high range with an excellent low range response.

Highly reliable 2-motor tape transport mechanism

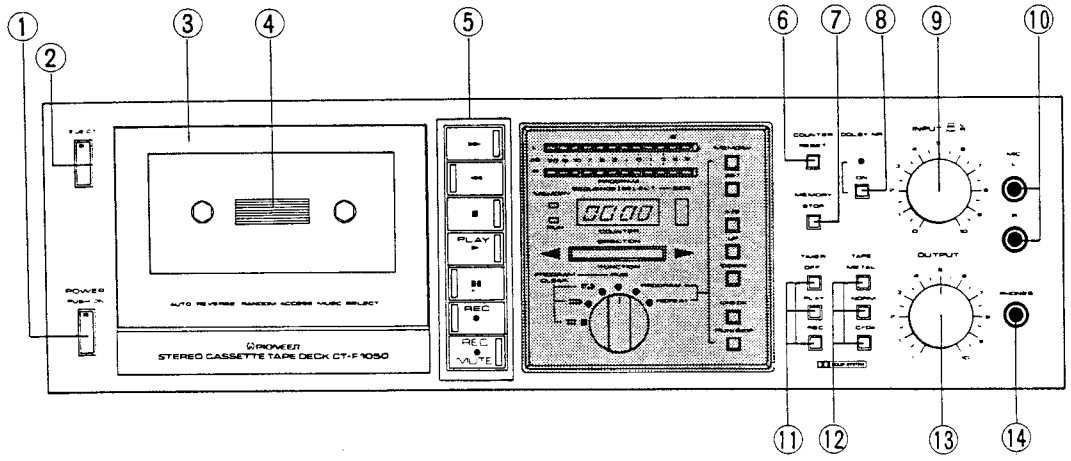
This is a 2-motor tape transport system: a DC servo control motor is used to make the tape travel at its rated speed while a high-torque DC motor is used to drive the tape reel base. A large-sized flywheel is employed, and the precision-crafted pinch roller and capstan help to yield top-notch wow/flutter and tape travel stability.

Wide range of accessory functions

- **Operating switches**
  These switches feature IC-based logic control. Just a light touch is sufficient to change over directly from the fast forward or rewind mode directly to the playback mode. These switches serve to protect the tape and enable speedy operation.
- **3-position tape selector**
  A 3-position tape selector has been adopted for metal tapes, chrome tapes and normal tapes so that full justice is done to the characteristics of each type of tape.
- **2-color digital level meter**
  This level meter has light-emitting diodes (LEDs) in two colors. The LEDs have a fast response to indicate the recording and playback level, and they are capable of tracking pulse-like signals accurately.
- **Memory-stop function**
  The tape can be rewound to the place where the tape counter was set to "0000" at any place during recording or playback to locate a program which you want to hear.
- **Remote control unit**
  Using the remote control unit (5 m long cord), you can record or play back at a distance from the deck.
- **Dolby* noise reduction system**
  This system greatly suppresses the annoying tape hiss in the high-frequency range without impairing the sound quality (an improvement of 10 dB in the high frequencies).
- **REC muting switch**
  This can be used to cut out commercials or commentary during taping and to create automatically unrecorded blanks lasting 4 or more seconds for the PMS system and random access music select.
- **Timer switches**
  In combination with a timer, tape playback or recording can be started at the desired time.

* The word "Dolby" and ⊡⊡ are trademark of Dolby Laboratories Licensing Corporation.

FRONT PANEL FACILITIES



① POWER SWITCH (PUSH ON)

Power is supplied to the cassette deck when this switch is depressed (the light inside the cassette holder and the forward indicator of the DIRECTION selector both come on). When this switch is released, the power is turned off.

② EJECT SWITCH

The cassette holder moves out toward you when this switch is depressed.

③ CASSETTE HOLDER
④ CASSETTE TAPE LIGHTING LAMP
⑤ OPERATING SWITCHES

The following modes are set directly when each of the switches is depressed:

▶▶ (Fast forward): Depress this switch to send the tape forward at top speed from left to right.

◀◀ (Rewind): Depress this switch to send the tape rewind at top speed from right to left.

■ (Stop): Depress this switch to stop the tape run.

PLAY ▶: Depress this switch to play back a tape or to record a tape.

II (Pause): Depress this switch to stop the tape temporarily during recording.or playback. (It will not work during fast forward or rewind operations.) Depress the PLAY ▶ switch to release the pause or, alternatively, depress the stop switch.

REC ●: When recording on a tape, depress this switch together with the II (Pause) switch and then depress the PLAY ▶ switch.

REC ● MUTE: While this switch is depressed (ON) during recording, blanks can be recorded on the tape since the input signals are not recorded. For details, refer to "USING THE REC MUTE SWITCH" on page 12.

All the operating switches are released (OFF) to stop mode when the POWER switch is turned off.

⑥ COUNTER RESET SWITCH

The display on the tape counter is reset to "0000" when this switch is depressed. This switch will not work when the FUNCTION selector is set to the PROGRAM or REPEAT position.

⑦ MEMORY STOP SWITCH

When this switch is depressed, the position at which the tape counter display was reset to "0000" by the counter reset switch during recording and playback is programmed. When the tape is fast forwarded or rewound by depression of the ▶▶ (Fast forward) or ◀◀ (Rewind) switch, the tape will stop at the "0000" position. (For details, refer to "USING THE MEMORY STOP FUNCTION" on page 12.)

⑧ DOLBY NR SWITCH

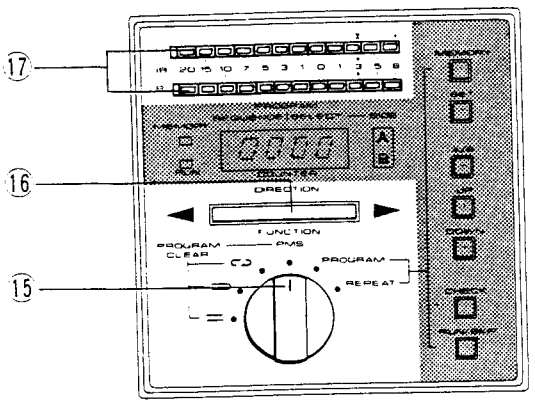
Depress this switch to the ON position when recording a tape using the Dolby noise reduction system or when playing back a tape recorded by the Dolby NR system. The indicator above the switch will then light.

⑨ INPUT CONTROLS (Recording Level)

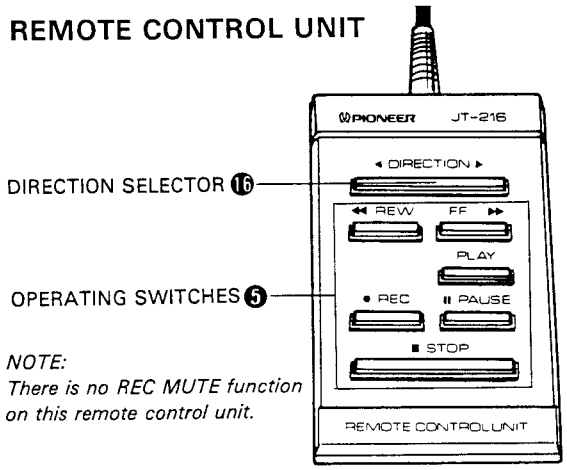
These are used to adjust the input level during recording. When the knobs are rotated clockwise, the input level is increased. The two knobs (L and R) are coupled and can be rotated together. It is also possible to use them independently, the forward knob being for the left (L) channel and the rear knob for the right (R) channel.

⑩ MIC JACKS (L-MIC-R)

Plug the microphones into these jacks for microphone recording. Check the left and right channels before connecting the microphones.



REMOTE CONTROL UNIT



NOTE:
There is no REC MUTE function on this remote control unit.

⑪ TIMER SWITCHES

Recording or playback can be controlled by the timer, in which case these switches are used.

OFF: Depress the switch to this position when you do not intend to use the timer.

PLAY: Depress this switch when automatically playing back a tape at the time set on the timer.

REC: Depress this switch when automatically recording a tape at the time set on the timer.

For details, refer to "RECORDING AND PLAYBACK USING THE TIMER" on page 22.

⑫ TAPE SELECTORS

Depress the switch that corresponds to the type of tape being used in the deck.

METAL: For metal tapes

NORM: For normal tapes or LH tapes

CrO_2: For chrome tapes

(For details, refer to LISTING OF TAPES on page 7.)

⑬ OUTPUT CONTROL (Playback Level)

This is used to adjust the output level. This level is increased when the knob is rotated clockwise (↻).

NOTE:
When this knob is rotated to its leftmost position during recording and playback, the sound from the headphones and speakers is muted.

⑭ HEADPHONES JACK

Plug your headphones into this jack to listen to tape play through your stereo headphones. The volume is controlled by the output control.

⑮ FUNCTION SELECTOR

This selector is used to select the mode for 2-way recording/playback and for repeated playback. It is also used to select the playback method (PMS system operation, random access music selection).

PROGRAM CLEAR (Green display)

〓 : For recording or playing back a tape on one side only in the forward or reverse direction.

⇉ : For recording or playing back a tape on both sides starting with the forward direction.

↻ : For repeat playback.

PMS: For searching for a recorded program with the PMS function. (For details, refer to "PMS SYSTEM OPERATION" on page 13.)

PROGRAM: (Red display)

When memorizing the program contents (designation of the order in which the programs are to be heard) or whenperforming playback (RUN) in line with the program conterts with random access music selection.

(For details, refer to "RANDOM ACCESS MUSIC SELECTION" on page 16.)

REPEAT: (Red display)

For repeatedly playing back programs stored in the program memory.

NOTES:

- *The contents of the program memory are erased when the FUNCTION selector is set to any position other than PROGRAM or REPEAT.*
- *The program memory are erased when the power switch is set to OFF.*

⑯ DIRECTION SELECTOR

This is used to select the tape direction (during recording, playback and pause). When depressed, the tape direction is reversed and the lamp indicates the direction.

▷ : Indicates that tape is running in a forward direction (tape moves from left to right).

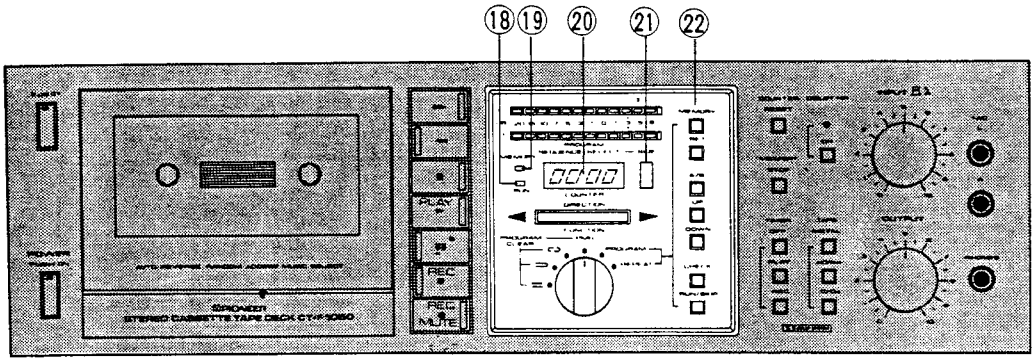
◁ : Indicates that tape is running in a reverse direction (tape moves from right to left).

NOTE:
When the power is switched on, priority is given to the forward motion of the tape even if the FUNCTION selector is set to the 〓 ⇉ or ↻ position.

⑰ LEVEL METER (L, R)

This indicates the input signal level during recording and the output signal level during playback.

FRONT PANEL FACILITIES (Continued)



⑱ RUN INDICATOR

This lights or winks as follows with program playback:

Lights: When the RUN/SKIP switch is depressed and playback is performed in line with the program contents.

Winks: When the RUN/SKIP switch is depressed during program playback, the program being heard is skipped and the next program is played back.

⑲ MEMORY INDICATOR

This lights when the PROGRAM-MEMORY switch or CHECK switch is depressed.

⑳ COUNTER (TAPE-COUNTER or PROGRAM-SEQUENCE/SELECT)

This indicates the position of the tape run. The tape counter reverts to "0000" when the power is switched on.

When the function selector indicator lights up green, the tape position is indicated in 4 digits. When the function selector indicator lights up red, the "SEQUENCE" of the programs played ([/]) play sequence: indicates 1) and the "SELECT" of the program numbers recorded on the tape ([/]) first program on side A or B) are indicated.

(For details, refer to "RANDOM ACCESS MUSIC SELECTION" on page 16.)

㉑ SIDE INDICATOR

This lights or winks to indicate side A or side B in the following cases:

- When the A/B switch has been set (lights).
- When a program has been automatically searched and played back in line with the program contents (lights).
- When the program contents are checked and are corrected in accordance with the check switch (lights).
- The lamp winks to indicate an error when there are more than 19 programs on one side (A or B) of the tape.
- Both lamps A and B wink when the tape present position is not being designated upon completion of the storage of the program contents in the memory.

NOTE:

This indicator does not display except for random access music selection.

㉒ PROGRAM SWITCHES

These are used for random program selection programming.

MEMORY: Depress this switch when starting to program the random program selection and when completing the command of the program contents.

SET: Depress this when aligning the designated tape side (A or B) and the program number with the sequence of the programs to be played and when storing this information in the memory.

A/B: Depress this when selecting the side of the tape (side A or side B).

UP: Depress this when designating the program number. Every time this switch is depressed, the number increases and the number of the program on the tape is indicated on the right of the counter. When it is kept in the depressed position, the number changes continuously.

DOWN: When this is depressed in the same way as the UP switch, the number decreases.

CHECK: Depress this switch to check the contents of the program. Every time it is depressed, the contents of the program are displayed on the counter in the programmed sequence.

RUN/SKIP: Depress this switch when starting tape playback in the programmed sequence and when you want to skip the program which you are now listening to during the program playback.

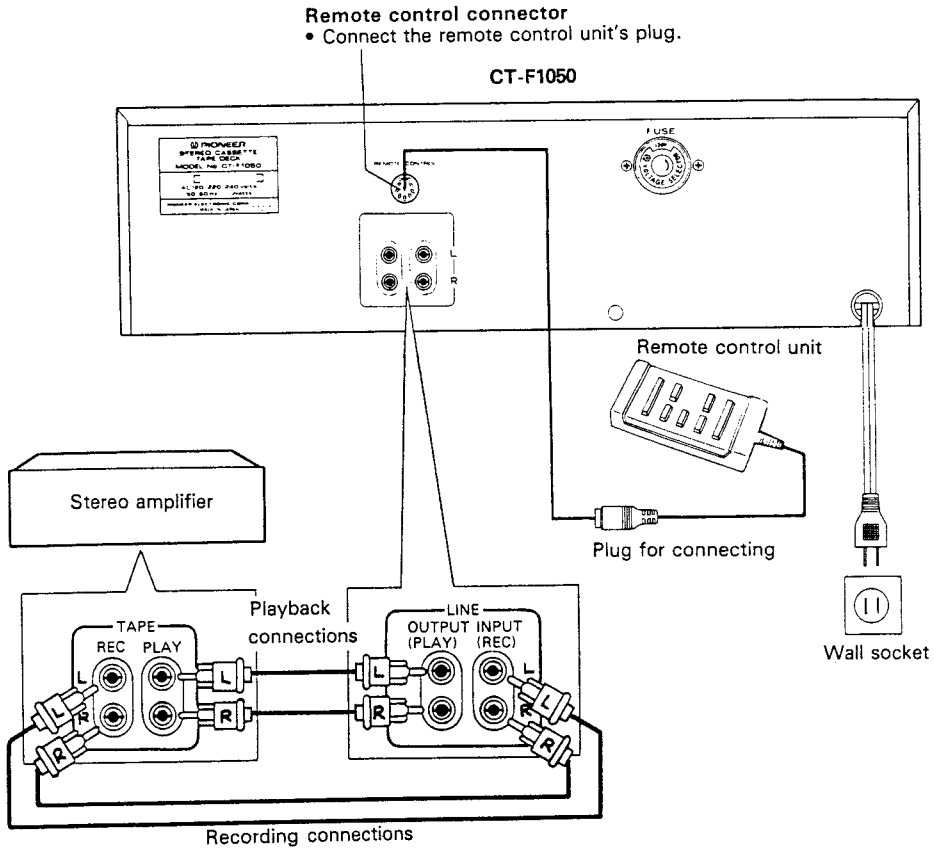
NOTE:

The contents of the program memory are erased when the power switch is set to OFF.

CONNECTIONS

Before the connections, turn off the stereo amplifier's (receiver's) power switch in order to prevent any adverse effect upon other audio components. Connect the tape deck's terminals (OUTPUT-INPUT) to the tape terminals on the stereo amplifier (or receiver) with the accessory cords. The upper terminal is for the left channel and the lower for the right channel.

Connections for playback: connect the TAPE PLAY input terminals on the stereo amplifier to the tape deck's LINE OUTPUT (PLAY) terminals.
Connections for recording: connect the stereo amplifier's TAPE REC output terminals to the tape deck's LINE INPUT (REC) terminals.



LISTING OF TAPES

This table shows the proper settings of the tape selector for all leading brands of tapes.

Tape selector \ Brands	BASF	SONY	SCOTCH	TDK	FUJI	AGFA	MAXELL	DENON	PHILIPS	AMPEX
METAL position for metal tape	——	METALLIC	METAFINE	MA MA-R	SR	——	MX	DXM	——	——
NORM position for normal tape	LH LN LH SUPER SLH-I	HF AHF BHF CHF	CRYSTAL LH M-12 MASTER I	D ED AD OD	FX, FX Jr FX DUO FX-I DR, ER	LH SUPER HIGH DYNAMIC	LN, UD UL, UD XL-I XL-I	DX-3 DX-1	——	STUDIO QUALITY PLUS SERIES
CrO_2 position for chrome tape	CHROM DIOXID SCR	CR JHF	M-7 MASTER II	KR SA New SA SA-X	FX-II UR	——	CR UD XL-II XL-II	DX-7	CRO2	——

PLAYBACK (Basic Technique)

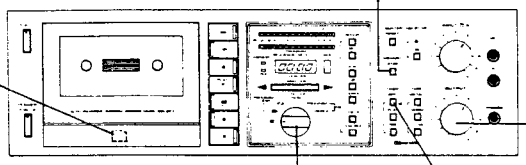
1 Don't forget to:

Set the knobs and switches as follows so that the tape deck plays back the tape properly.
Follow the numerical sequence.

❶ Check whether the heads are dirty (see page 24).

❷ Set the MEMORY-STOP switch to the released position.

❸ Set to the OUTPUT knob to the "6".



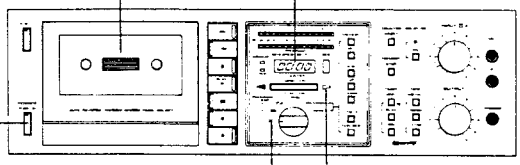
❹ Set the FUNCTION selector to the "⏥" position.

❺ Depress the TIMER-OFF switch.

❻ Set the stereo amplifier's power switch and tape monitor switch to ON and prepare for tape playback.

2 Switch on the power.

Lights "0000" is displayed

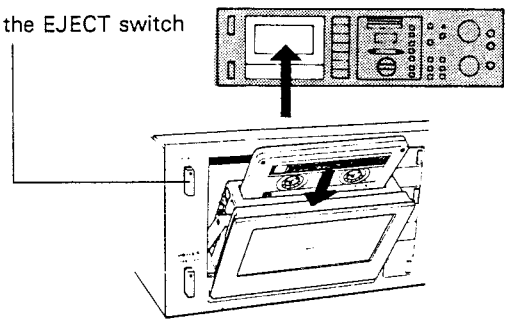


• Depress the POWER switch

Lights Forward direction ▷ lights

3 Load the cassette tape.

❶ Depress the EJECT switch



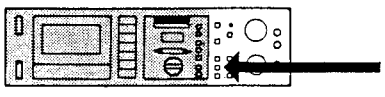
❷ Load the cassette tape into the cassette holder with the exposed tape side face down.

❸ Depress the top of the cassette holder to close the door.

4 Set the tape selector to the appropriate position.

Depress the switch that corresponds to the kind of tape being used.

Tape selectors:



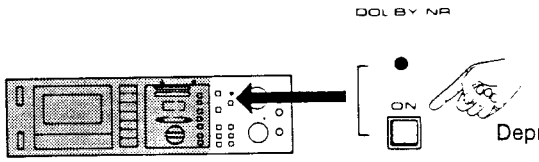
..... For metal tapes

..... For normal tapes, LH tapes

..... For chrome tapes

5 Set the Dolby NR switch.

Depress this to ON when playing back a tape which has been recorded with the Dolby NR system. Set it to the released position when the tape has not been recorded with the Dolby NR system.

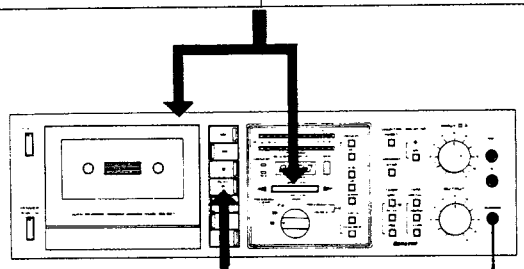


Depress to ON; release to OFF

6 Set the DIRECTION selector.

Depress the selector corresponding to the side of the tape which is to be played back and select the direction of the tape travel.

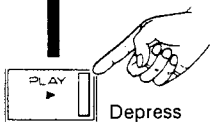
OPERATION	SIDE A PLAYBACK	SIDE B PLAYBACK
DIRECTION	◀	▶ Depress
Tape is loaded	Tape wound on left reel	Tape wound on right reel



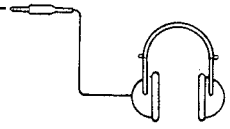
Depress the PLAY ▶ switch.

The tape is played back according to the lighting direction of the direction selector.

When the tape is fully wound up on the left or right reel, the auto-stop mechanism is activated and the tape is automatically stopped.



Depress



• Plug headphones into this jack for private listening.

- Depress the ■ (Stop) switch to stop the tape during playback. Depress the ❚❚ (Pause) switch to temporarily halt the tape motion. Depress the PLAY ▶ switch again to resume tape playback.
- Refer to "AUTO REVERSE, AUTO REPEAT PLAYBACK" on page 14 for details on these operations.
- Refer to "PMS SYSTEM OPERATION" on page 13 and "RANDOM ACCESS MUSIC SELECTION" on page 16 for details on these operations.

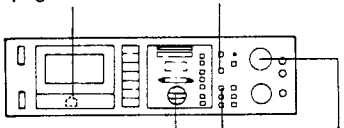
RECORDING (Basic Technique)

1 Don't forget to:

Set the knobs and switches as follows so that the tape deck records the tape properly. Follow the numerical sequence.

❶ Check whether the heads are dirty (see page 24).

❷ Set the MEMORY-STOP switch to the released position.



❹ Set the FUNCTION selector to the " = " position.

❸ Set the INPUT controls to the "0" position.

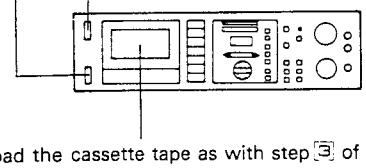
❺ Depress the TIMER-OFF switch.

❻ Set the stereo systems (stereo amplifier and tuner) power switches to ON and prepare for tape recording.

2 Load the cassette tape.

❶ Depress the POWER switch.

❷ Depress the EJECT button.

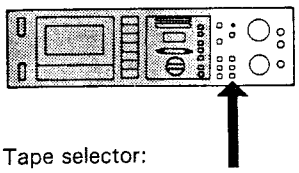


❸ Load the cassette tape as with step 3 of the playback procedure. Load the tape with side A toward you.

❹ Close the cassette holder.

3 Set the tape selector

Depress the switch that corresponds to the type of tape being used.



Tape selector:

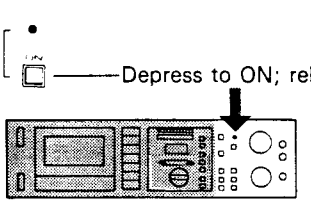
..... For metal tapes

..... For normal tapes, LH tapes

..... For chrome tapes

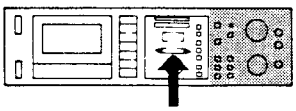
4 Set the Dolby NR switch.

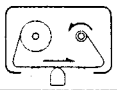
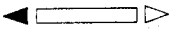
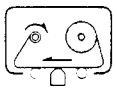
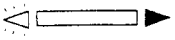
Depress it when recording using the Dolby NR system.



5 Set the DIRECTION selector.

Depress the selector corresponding to the side of the tape which is to be recorded and select the direction of the tape travel.

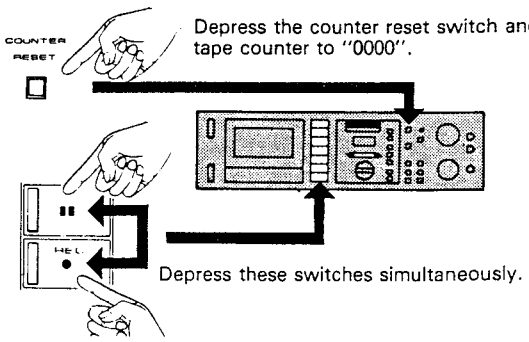


Side A or B recording selection	Tape winding	DIRECTION selector setting
Recording side A		
Recording side B		

• Take note of the DIRECTION selector indication when recording from somewhere between the beginning and end of the tape.

6 Set the deck to the recording stand-by mode.

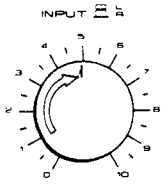
When the leader tape has come into contact with the head section, depress the PLAY ▶ switch and allow the tape to travel for about 5 seconds. Then depress the ▮▮ (Pause) switch.


COUNTER RESET
Depress the counter reset switch and set the tape counter to "0000".
Depress these switches simultaneously.

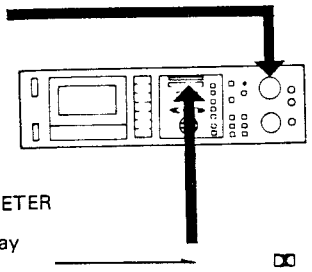
When using a memory stop function, refer to "USING THE MEMORY-STOP FUNCTION" on page 12.

7 Adjust the recording level.

Use the INPUT controls to adjust the recording level so that the level meter indicator lights between 0 and +1 dB. Make sure that the indication does not exceed +3 dB with strong signals (or +8 dB with metal tapes).

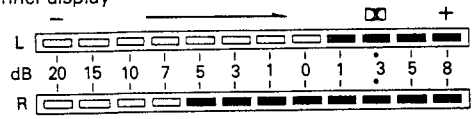


INPUT CONTROLS
Adjust the INPUT controls while observing the indication of the level meter.



LEVEL METER

Left (L) channel display

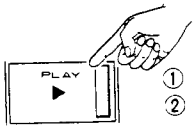


Right (R) channel display

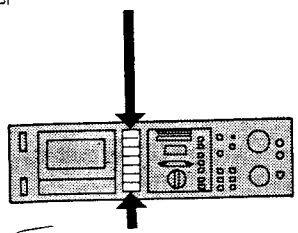
The " DD +3 dB" mark indicates the Dolby NR reference recording level.

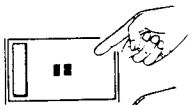
8 Start recording.

For auto reverse recording, refer to "Auto reverse recording" on page 15.

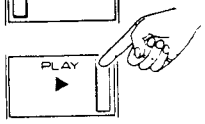


① Depress the PLAY ▶ switch.
② This lights.





① To interrupt recording temporarily, depress: II (Pause).



② To resume recording, depress: PLAY ▶.

When the tape has been fully rewound onto the left or right reel, the recording is completed automatically by the functioning of the auto-stop mechanism.

Recording with microphones

For microphone recording, plug the microphone into the MIC jack. Once plugged in, the input signals from the INPUT (REC) terminals will be automatically cut off.

Caution with microphone recording

- There are two MIC jacks, one for the left (L) channel and the other for the right (R) channel. Take care to set the microphones so that the sound field is made normal during playback.
  Use identical microphones (same name and model number) for both the left and right channels.
- When microphones are placed too close to the speakers, they sometimes pick up the sound reproduced through the speakers, resulting in a prolonged wailing noise called "howl". In cases like this, change the direction of the microphones or place the microphones at a distance from the speakers. Recordings can be monitored using headphones.
- You may damage a microphone if you plug it into the headphones jack by mistake.
- The suitable microphone impedance is between 250 ohms and 10 kilohms. Check the specifications of the microphones you intend to use.

Erasure

To erase a recording on your tape, set the recording level controls to "0" and set the tape deck to the recording mode.

Tape side to be erased	FUNCTION selector	DIRECTION selector
Erasure of side A only	"=" position	◀ ▷
Erasure of side B only	"=" position	◁ ▶
Erasure of sides A, B	"⊃" position	◀ ▷

When a new program source is recorded onto a prerecorded tape, the old program is automatically erased.

NOTE:
To erase the recorded contents of a metal tape, always set the tape selector to METAL and then proceed.

Precautions with recording

Recording operations cannot be performed in the following instances:

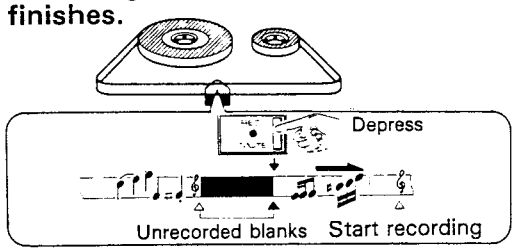
- When recording has been completed on sides A and B in the "⊃" mode and the deck left in this state in cases where an audio timer is used for recording. The next day, the timer will switch on the power and a different recording will be made.
- When the FUNCTION selector has been set to the PMS or PROGRAM mode (position at which the indicator lights up red).
- When the REC MUTE switch has been depressed to the ON position in the recording standby mode.
  The tape will run without recording any sound signals for four seconds and the deck will return to the recording standby mode.

USING THE REC MUTE SWITCH

This switch can be used to cut out unnecessary parts of FM programs such as the commercials and to create unrecorded blanks between the programs. Use it to create blanks of four seconds required between the programs for PMS playback and random access music selection.

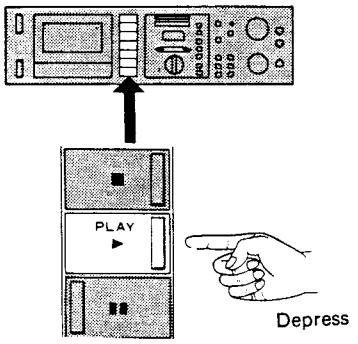
PROCEDURE

1 **Depress the REC MUTE switch during recording as soon as the program finishes.**



- The REC MUTE indicator lights and after 4 seconds it goes off and the deck is set to the recording stand-by mode. The ⏸ (Pause) indicator now lights.

2 **Depress the PLAY ▶ switch immediately before the next program starts and recording will then resume.**



If the REC MUTE switch is kept in the depressed position, it is possible to record blanks exceeding 4 seconds.

- This switch is useful when recording off records since you can cut out the noise produced when the stylus descends onto the surface of the record.

USING THE MEMORY-STOP FUNCTION

Use this switch during playback or recording to find the start of a program on the tape with the help of the tape counter.

BASIC TECHNIQUE (FORWARD DIRECTION)

1. Depress the COUNTER RESET switch at the desired position while the tape is running to set the tape counter to "0000".
2. Depress the MEMORY-STOP switch.
3. Depress the ◀◀ (Rewind) switch at the desired position after completing the playback or recording. The tape will then be rewound, the tape counter starts to count down and the tape stops when the counter displays "0000".

When the tape is traveling in reverse, depress the ▶▶ (Fast forward) switch. The tape is sent forward at high speed, the tape counter counts up and the tape stops when the counter displays "0000". For details, refer to the operation procedure in the table below.

NOTES:

- *MEMORY-STOP operations cannot be performed if the FUNCTION selector is set to the PROGRAM or REPEAT position (red indicator lights).*
- *Priority is given to PMS and there is no memory stop operation when the FUNCTION selector is at the PMS position.*

OPERATION PROCEDURE

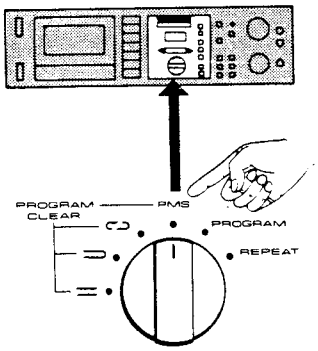
	During playback or recording			Upon completion of playback or recording		
Tape traveling mode / Step		①	②	③		④
Tape direction	DIRECTION switch	COUNTER RESET switch	MEMORY-STOP switch	"◀◀" switch or "▶▶" switch		Tape counter
Forward direction (side A)	DIRECTION	Depress	Depress	Depress	—	0010 → 0007 → 0003 → 0001 → 0000 ↑ Stop
Reverse direction (side B)	DIRECTION	Depress	Depress	—	Depress	9980 → 9997 → 9999 → 0000 ↑ Stop

PMS (Pioneer Music Select) SYSTEM OPERATION

The PMS is a system which automatically detects the unrecorded blanks between the programs recorded on the tape and it starts play from the beginning of the program. Use this system when you want to find a program quickly for playback without the use of the RANDOM ACCESS MUSIC SELECTION function.

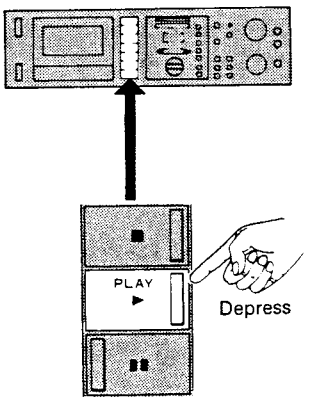
OPERATION

1 Set the FUNCTION selector to the PMS position.



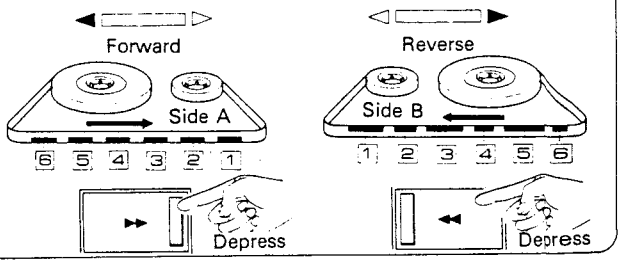
2 Depress the PLAY ▶ switch and play back the tape

Refer to "PLAYBACK (Basic Technique)" on page 8.



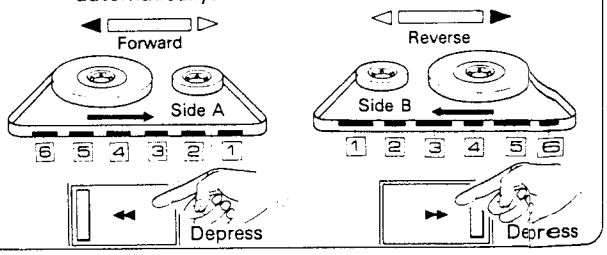
3 To skip programs during playback to listen to the following program

Depress the ▶▶ (Fast forward) switch during forward playback or the ◀◀ (Rewind) switch during reverse playback. The tape is sent forward at high speed and as soon as the end of the present program is detected, playback begins automatically from the start of the next program.



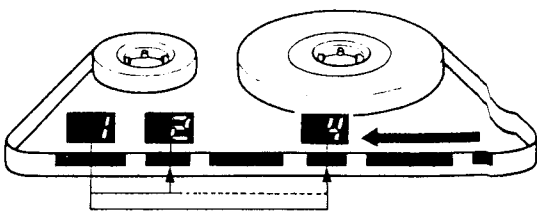
4 To listen again to a program during playback

Depress the ◀◀ (Rewind) switch during forward playback or the ▶▶ (Fast forward) switch during reverse playback. The tape is rewound and as soon as the start of the program is detected, the program you have been listening to is played back again automatically.



5 To skip several programs in either direction on the tape

Repeat steps 3 and 4.



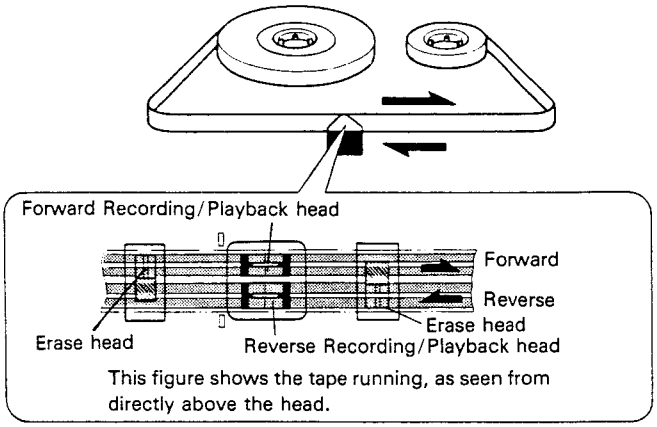
NOTES:

1. *If the unrecorded blank on the recorded tape is too short, the next program may be skipped and playback may start from the beginning of the following program.*
2. *The PMS system does not work with the following types of pre-recorded tapes:*
   - *Tapes with recorded conversations, for instance, where the sound is broken for durations exceeding 4 seconds in many places activate the PMS system at every duration.*
   - *Tapes with short unrecorded blanks between programs (having a duration of less than 4 seconds).*
     Tapes with sections where the sound is soft for durations exceeding 4 seconds.
3. *Always return the FUNCTION selector to the "⊂⊃", "⊃" or "=" position if you do not intend to use the PMS system.*
4. *The memory stop function does not work when the PMS system is being used.*
5. *The tape stops traveling when the FUNCTION selector is set from "⊂⊃" to PMS or from PMS to "⊂⊃".*

AUTO REVERSE, AUTO REPEAT FUNCTIONS

The FUNCTION selector can be used to automatically reverse the direction of the tape for reverse recording or playback (auto reverse) or to automatically repeat playback (auto repeat).

> The "forward" direction is when the tape moves from left to right; the "reverse" direction is when the tape moves from right to left.

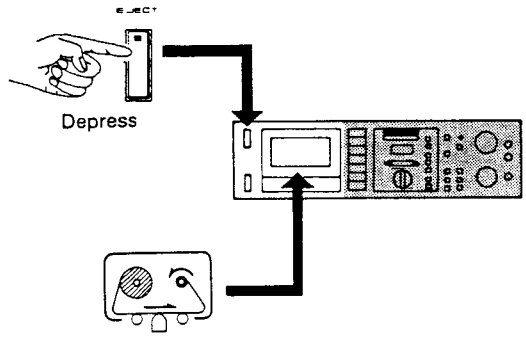


This figure shows the tape running, as seen from directly above the head.

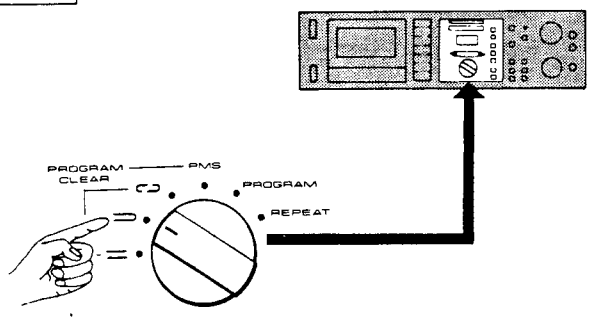
AUTO REVERSE PLAYBACK (PLAYBACK OF BOTH SIDES " ⊃ ")

1 Depress the EJECT switch and load the cassette tape.

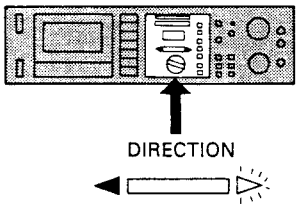
Set the tape so that side A or side 1 is facing you and the tape is wound up on the left reel.



2 Set the FUNCTION selector to " ⊃ ".



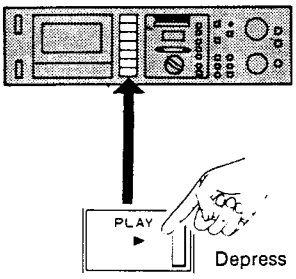
3 Depress the DIRECTION selector and cause " ▷ " (forward direction) to light.



NOTE: The auto reverse function will not work when playback has started from the reverse direction.

4 Depress the PLAY ▶ switch.

The tape travels from left to right, playback starts and at the left-hand tape-end, the tape is reversed with the tape traveling from right to left. The tape stops automatically at tape-end.



Precautions with auto reverse

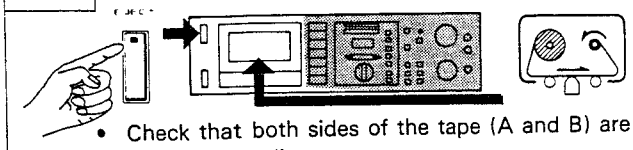
The auto reverse mechanism may malfunction in the following instances:

- When a tape with an extremely thin magnetic coating (such as a C-120) is used.
- When the leader tape has printed characters or marks.
- When a strong light is momentarily applied near the heads.
- When playback is performed without a cassette tape having been loaded.

The tape is reversed at the tape end even if there is a malfunction with leader tape detection. (The tape stops when the FUNCTION selector is set to the "=" position but is reversed at the "⊃" or "⊂⊃" position.)

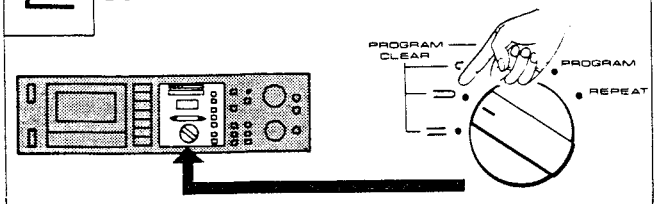
AUTO REVERSE RECORDING (RECORDING OF BOTH SIDES " ⇄ ")

1 Depress the EJECT switch and load the cassette tape.

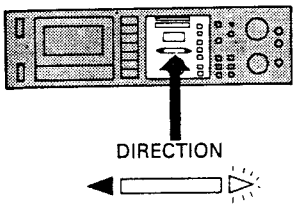


- Check that both sides of the tape (A and B) are free for recording.
- Set the tape so that side A or side 1 is facing you and the tape is wound up on the left reel.

2 Set the FUNCTION selector to " ⇄ ".

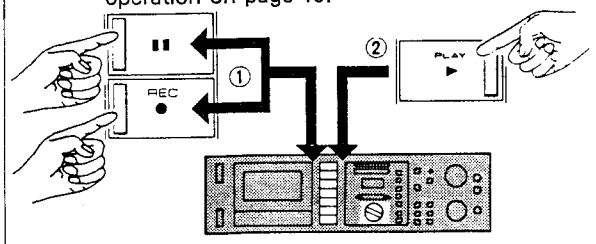


3 Depress the DIRECTION selector and cause " ▷ " (forward direction) to light.



4 Depress the REC switch, ⏸ (Pause) switch together and PLAY ▶ switch.

Proceed with steps 1 through 7 in the recording operation on page 10.

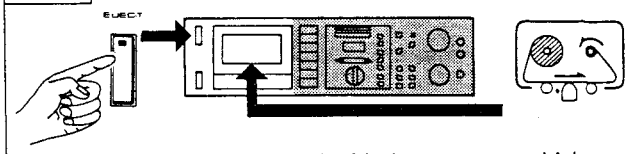


The tape travels from left to right, recording starts and at the left-hand tape-end, the tape is reversed with the tape traveling from right to left. The tape stops automatically at tape-end.

NOTE:
When the FUNCTION selector has been set to " ⇄ ", operation is the same as for auto reverse recording (⇄). This function is to prevent superimposed recordings.

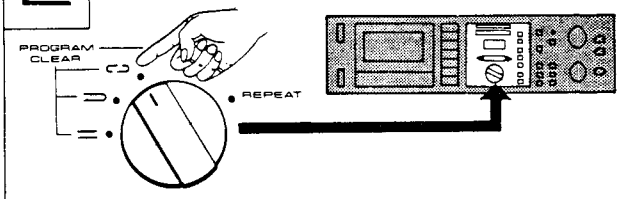
AUTO REPEAT PLAYBACK (REPEAT PLAYBACK " ⇄ ")

1 Depress the EJECT switch and load the cassette tape.

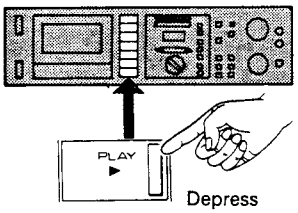


Check the side (A or B) with the programs which you want to listen to.

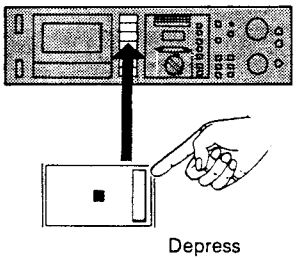
2 Set the FUNCTION selector to " ⇄ ".



3 Depress the PLAY ▶ switch.



4 Depress the ■ (Stop) switch to stop the auto repeat operation.



NOTES:

- *With the auto reverse and auto repeat tape motion, remember that recording and playback will be interrupted before and after the tape direction changes from left to right or from right to left for about 1 second.*
- *Always set the FUNCTION selector to " = " or PMS if you do not intend to use the auto reverse or auto repeat functions.*

RANDOM ACCESS MUSIC SELECTION

This deck contains a built-in microcomputer which allows you to select at random the program you want to listen to among those recorded on tape sides A and B, and to listen to them in the desired sequence. In accordance with the programming, the programs are automatically searched and played back.

The following operations are required for program playback.

1. Unrecorded blanks must be recorded between the programs. P12
2. The number of programs recorded on one side of the tape must be counted beforehand.
3. The programs for listening to on side A and side B must be searched and specified. ..... P16 ~ P17
4. The tape present position must be designated (the number of the program at which the tape is now running must be designated). P18, 19
5. Give a RUN command to the RANDOM ACCESS MUSIC SELECTION.

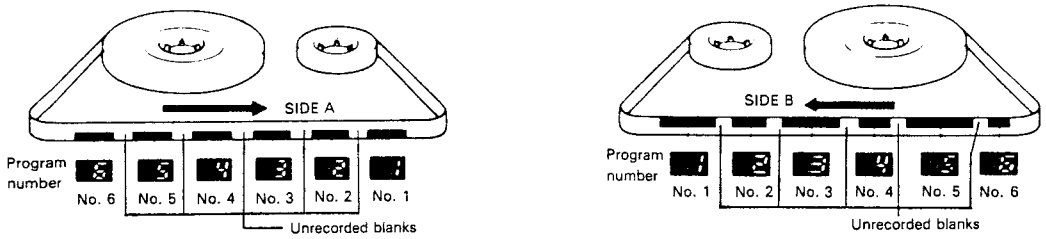
Pre-recorded tapes suitable for Random access music selection

This deck uses a system which detects the unrecorded blanks between the programs to count up the number of programs on the tape. For this reason, if there is commentary or applause between programs, such as with an off-air recording, if the unrecorded blank is less than 4 seconds long or if the tape is affected by a high level of noise, the system may not be able to detect the blanks. On the other hand, if there is no sound for several seconds such as is often the case with classical music or if the sound level drops to less than −20 dB for several seconds, the system may detect these sections as unrecorded blanks.

NUMBER OF PROGRAMS HANDLED BY RANDOM ACCESS MUSIC SELECTION

If not more than 19 programs are recorded on side A and 19 programs are recorded on side B (making a maximum total of 38 programs), then up to 20 programs can be selected and programmed in the desired sequence for playback. Programming is not possible with a side of a tape with more than 19 programs recorded.

RECORDED PROGRAM NUMBER AND INDICATION

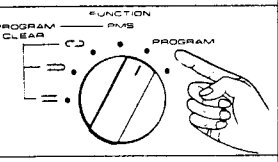
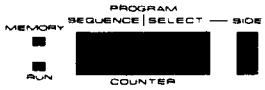
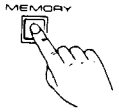
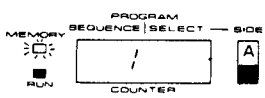
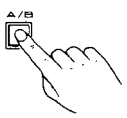
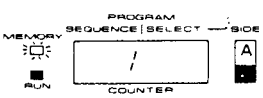


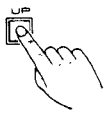
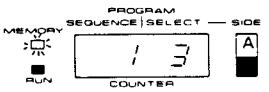
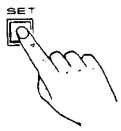
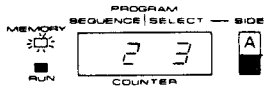
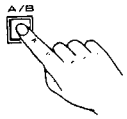
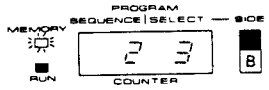
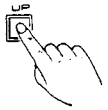
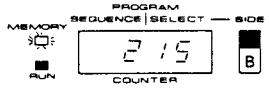
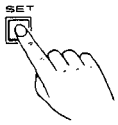
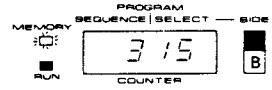
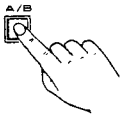
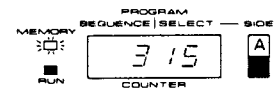
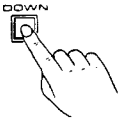
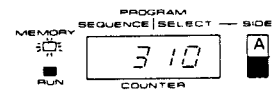
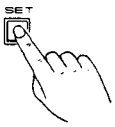
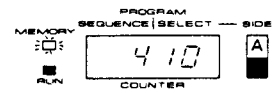
BASIC TECHNIQUE FOR PROGRAM MEMORY

Start programming in order from the first program which you want to listen to. The table on the right gives an example of programming.

Side \ Program sequence	1st	2nd	3rd	.....	19th	20th
A	3	—	10		—	—
B	—	15	—		—	—

PROGRAM MEMORY OPERATION

Step	Switch selector operation	Display	Content
1	Set the FUNCTION switch to the PROGRAM position. 	 Counter display goes off.	———
2	Depress the PROGRAM-MEMORY switch. 	 First program displayed	It is now possible to program the program which you want to listen to first on side A.
	1st Example: No. 3 program on side A		
3	Depress the A/B switch and set to side A. 		The desired program is designated to be on side A.

Step	Switch, selector operation	Display	Content
4	Depress the UP switch and set the SELECT display to 3. 		No. 3 program on side A has been designated the first program.
5	Depress the SET switch. 	 Second program displayed	No. 3 program on side A has been memorized. Second program in the sequence is now prepared.
2nd Example: No. 15 program on side B			
6	Depress the A/B switch and set to side B. 	 B is displayed.	The desired program is designated to be on side B.
7	Depress the UP switch and set the SELECT display to 15. 		No. 15 program on side B has been designated the second program.
8	Depress the SET switch. 	 Third program displayed	No. 15 program on side B has been memorized. Third program in the sequence is now prepared.
3rd Example: No. 10 program on side A.			
9	Depress the A/B switch and set to side A. 	 A is displayed	The desired program is designated to be on side A.
10	Depress the DOWN switch and set the SELECT display to 10. 		No. 10 program on side A has been designated the third program.
11	Depress the SET switch. 		No. 10 program on side A has been memorized. Fourth program in the sequence is now prepared.

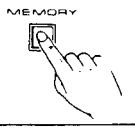
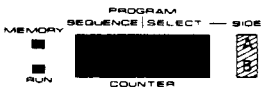
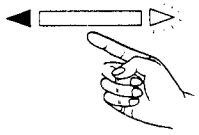
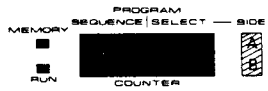
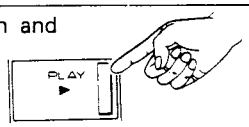
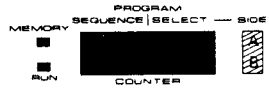
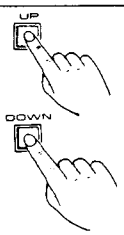
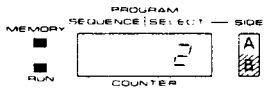
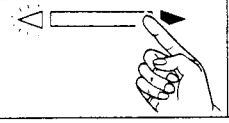
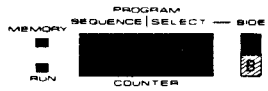
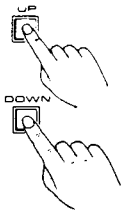
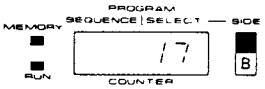
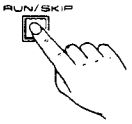
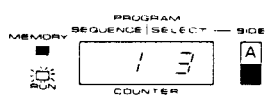
Up to 20 programs on both side A and side B can be memorized in the above way.

Cassette tape present position designation (I)

RANDOM ACCESS MUSIC SELECTION

If you know what the number of the program is and which side of the tape it is playing on when you are listening to a recording on a cassette tape (singer, song title), designate the present position of the tape as follows:

□ = Comes on ■ = Goes off ▨ = Winking

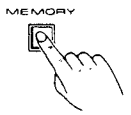
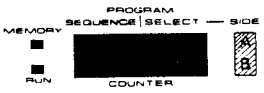
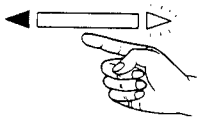
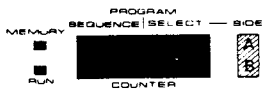
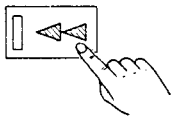
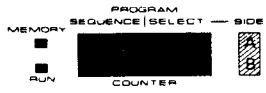
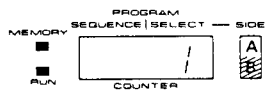
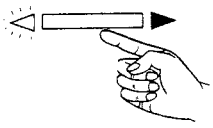
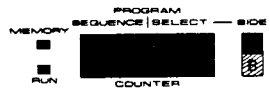
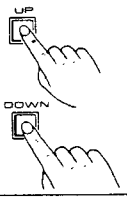
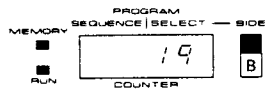
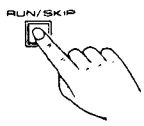
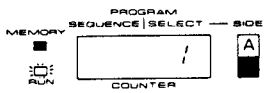
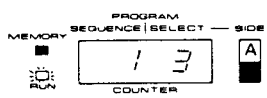
Step	Switch, selector operation	Display	Content
12	Depress the PROGRAM-MEMORY switch. 	 A and B wink	SIDE indicator winks. Counter display and MEMORY indicator go off.
13	Depress the DIRECTION selector and cause the forward direction " ▷ " to light. 		
14	Depress the PLAY ▶ switch and Playback, side A. 		Playback of side A starts.
	Example: No. 2 program on side A		
15	Listen to the program being played back. Check which program it is and designate which program it is on side A by operating the UP or DOWN switch. 		Upon completion of the designation, "A" winks and then comes on constantly.
16	Depress the DIRECTION switch and cause the reverse direction " ◁ " to light. 		"A" goes off; "B" winks.
	Example: No. 17 program on side B.		
17	As with side A, designate which program on side B it is by operating the UP or DOWN switch. 		Upon completion of the designation, "B" winks and then comes on constantly.
	Completion of preperation for program playback		
18	Start by pressing the RUN/SKIP switch. 		The tape is now fast forwarded (cueing) to No. 3 program on side A set first in the sequence from No. 2 program on side where the tape is now. Once the tape comes to the No. 3 program, it is played back, and playback begins in the programmed sequence.

NOTE:
When the counter SELECT (program number) has indicated 20, it means the twentieth program on one side of the tape. However, designation is not possible because of the following. When the microcomputer identifies the start of the next program after the completion of the present program playback (section at the start of the unrecorded blank), it will count that start of the next program as the 21st program if the tape has 20 programs and the 20th program has finished so that the leader tape now approaches. This results in an overflow. The SIDE indicator winks to indicate that there has been an error in the program memory operation.

Cassette tape present position designation (II)

If you do not know what the number of the program is and which side of the tape it is playing on when you are listening to a recording on a cassette tape (singer, song title), designate the present position of the tape as follows. However, the number of recorded programs (number of programs on side A, number of programs on side B) has to be counted.

□ = Comes on ■ = Goes off ▨ = Winking

Step	Switch, selector operation	Display	Content
12	Depress the PROGRAM-MEMORY switch 	 A and B wink.	SIDE indicator winks. Counter display and MEMORY indicator go off.
13	Depress the DIRECTION selector and cause the forward direction "▷" to light. 		
14	Depress the ◀◀ (rewind) switch. 		
	The tape is rewound and No. 1 program on side A is automatically entered, and the position of the program recorded on side A is aligned with the memorized program.		No. 1 program on side A is indicated and "A" changes from winking to constant lighting; "B" winks.
15	Depress the DIRECTION selector and cause the reverse direction "◁" to light. 		"A" goes off; "B" winks.
16	Depress the UP or DOWN switch and set to add one program to the total number of programs recorded on side B. (Example: 18 + 1 = 19 setting when there are 18 programs on side B) 		"B" comes on
	Completion of preparation for program playback		
17	Start by pressing the RUN/SKIP switch. 	 	The tape is automatically fast forwarded to No. 3 program on side A in the first program from No. 1 program on side A. The deck is set to the play mode at the start of the No. 3 program and the program is played back.

NOTES:

- *During program playback, the UP and DOWN switches are always receiving instructions and so if they are operated during playback, the preset set program position may become misaligned and the program operation will no longer be performed correctly.*
- *The program is forcibly returned to B-1 with auto stop after a fast forward operation or to A-1 with auto stop after a rewind operation, even if the present program is incorrectly designated.*

Setting to the next program in the sequence during program playback

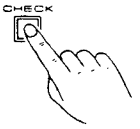
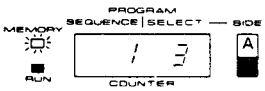
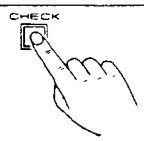
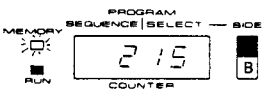
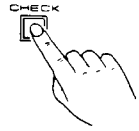
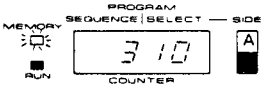
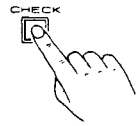
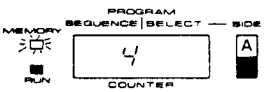
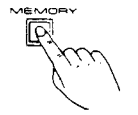
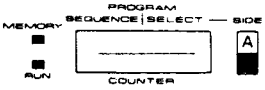
- Depress the RUN/SKIP switch when skipping the program you are now listening to during program playback and listening to the next program in the sequence. The program being played finishes, the RUN indicator starts to wink, the start of the program next in the sequence is searched and playback begins.

This switch is used when checking the contents of a program (checking which program of which side has been programmed in the playback order), when changing the program contents and when adding to the program contents.

CHECKING THE PROGRAM CONTENTS

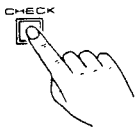
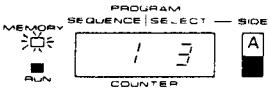
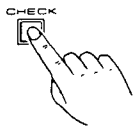
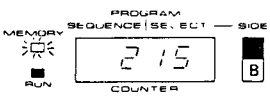
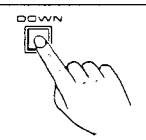
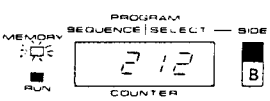
For instance, checking whether the program on side A-3, B-15 and A-10, has been stored in the memory

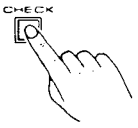
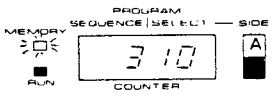
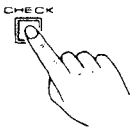
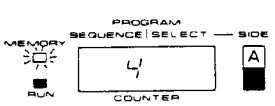
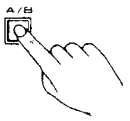
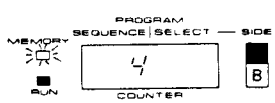
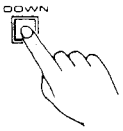
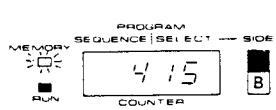
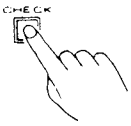
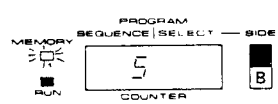
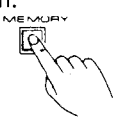
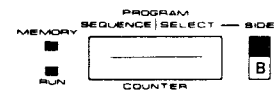
Program content check procedure

Step	Switch, selector operation	Display	Content
1	Depress CHECK switch. 		A-3 is memorized in 1st program.
2	Depress CHECK switch. 		B-15 is memorized in 2nd program.
3	Depress CHECK switch. 		A-10 is memorized in 3rd program.
4	Depress CHECK switch. 		Program number is not indicated since nothing has been memorized for the 4th program and beyond.
5	Depress the PROGRAM-MEMORY switch. 		The MEMORY indicator goes off and the state before the check switch was depressed is displayed.

CHANGING/ADDING PROGRAM CONTENTS

For instance, changing 2nd program B-15 to B-12 and adding B-15 to 4th program

Step	Switch, selector operation	Display	Content
1	Depress the CHECK switch. 		
2	Depress the CHECK switch. 		
3	Depress the DOWN switch 		B-15 is changed to B-12 in the 2nd program.

Step	Switch, selector operation	Display	Content
4	Depress the CHECK switch. 		
5	Depress the CHECK switch. 		
6	Depress A/B switch and set to side B. 		Side B has been prepared.
7	Depress the DOWN switch. 		The adding of B-15 to the 4th program has been designated.
8	Depress the CHECK switch. 		B-15 is now memorized in the 4th program. For 5th program and beyond, no program number is indicated since nothing has been programmed.
9	Depress the PROGRAM-MEMORY switch. 		The MEMORY indicator goes off and the state before the check switch was depressed is displayed.

NOTES:

- *When confirming or correcting the program with the CHECK switch, perform the operation in any mode except program playback. Always depress the PROGRAM-MEMORY switch after checking, changing or adding.*
- *Once there is no indication for the program number display (SELECT), it is possible to partially erase a program which has already been entered. For instance, at step 2) where B-15 of program 2 is displayed, depress the UP switch, move up through 15, 16, ... 20, and depress the CHECK switch with the non-indication after 20. A-10 of the next (3rd) program is displayed and the 2nd program is automatically erased.*

SWITCH OPERATION DURING PROGRAM PLAYBACK

Manual operation of the operating switches during program playback results in the following (the program contents have been stored in the memory).

Errors may be caused when direction change, ▶▶ (Fast forward), ◀◀ (Rewind), or SKIP operation is executed between music pieces during program playback.

- When the ■ (Stop) switch is depressed, the program playback is interrupted (RUN indicator goes off) but when the RUN/SKIP switch is depressed, the first program in the sequence is skipped and program playback is started from the beginning.
- When the ❚❚ (Pause) switch is depressed, the program operation is temporarily interrupted. When the PLAY ▶ switch is depressed, the program playback is continued. When the RUN/SKIP switch is depressed, the next program is executed.
- When the ▶▶ (Fast forward) or ◀◀ (Rewind) switch is depressed, the RUN indicator goes off. The tape is either fast forwarded or rewound and it stops at tape-end. When the RUN/SKIP switch is depressed, the first program is executed.
- There is no change in the playback mode even if the PLAY ▶ switch is depressed. When this switch is depressed during a rewinding or fast forwarding to the next program, the RUN indicator goes off. **The deck will then be set to the regular playback mode but the contents of the program playback memory are still stored.**
- When the DIRECTION switch is used to change the tape direction, program playback is suspended. (The RUN indicator goes off.) The direction of the tape is changed and the deck is set to the regular playback mode. When the DIRECTION switch is depressed with rewinding or fast forwarding to the next program, the RUN indicator goes off, the tape is either rewound or fast forwarded in the direction which has been selected, and it stops at tape-end.

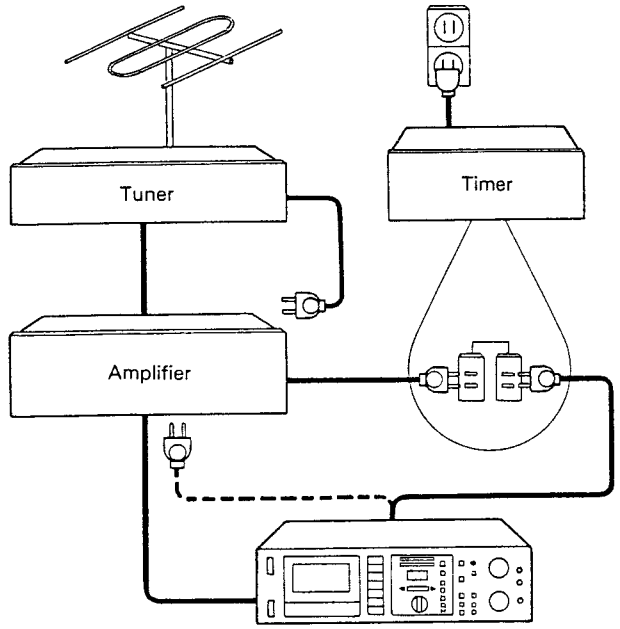
RECORDING AND PLAYBACK USING THE TIMER

By using an audio timer available from your audio store, you can set the tape deck automatically to the recording mode at the desired time or, alternatively, set it to the playback mode.

- Always load the cassette with the tape fully rewound onto the left reel with unattended recording or wake-up playback.
- The timer connections and operation differ according to the type of timer used. For details, refer to the operating instructions of the timer concerned.

CONNECTIONS

Plug the power cords of the deck and the stereo components (amplifier, tuner, etc.) into the timer's power outlets.



CT-F1050

UNATTENDED RECORDING (AUTOMATIC RECORDING MODE SETTING)

Example: Recording an FM program

1. Operate the timer and switch the power to the deck and the other stereo components to ON.
2. Tune in the FM station and adjust the recording level. Follow steps 1 through 5 in "RECORDING (Basic Technique)" on page 10.
3. Depress the TIMER-REC switch.
4. Determine the recording time in accordance with the program source to be recorded, and set the FUNCTION selector to "⇉" (one-way) or to "⇄" (recording on both sides). For details, refer to "AUTO REVERSE RECORDING" on page 15.
5. Operate the timer and set it so that the power comes on at the desired time.
   The power to the deck and the other stereo components comes on at the preset time and recording starts about 3 seconds later.
   When the tape is fully wound on one of the reels (this depends on the position, "⇉" or "⇄", of the FUNCTION selector), the auto-stop mechanism is activated and the tape stops automatically.

NOTE:
Rotate the volume control of the stereo amplifier and set it to a low position during unattended recording.

AUTOMATIC PLAYBACK (WAKE-UP PLAYBACK)

1. Operate the timer and switch on the power to the deck and other stereo components.
2. Load the tape and set the switches in accordance with steps 1 through 5 of "PLAYBACK (Basic Technique)" on page 8.
3. Depress the TIMER-PLAY switch.
4. Set up the deck following step in "PLAYBACK" so that the desired music will be played back.
5. Adjust the volume control on the stereo amplifier to a level at which you wish to wake up.
6. Operate the timer and set it so that the power comes on at the desired time.
   The power to the deck and the other stereo components comes on at the preset time and playback starts about 3 seconds later. When the tape is fully wound on one of the reels (this depends on the position, "⇉" or "⇄", of the FUNCTION selector), the auto-stop mechanism is activated and the tape stops automatically.

NOTES:

- *Always remember to depress the TIMER-OFF switch when you do not intend to use the unattended recording or automatic playback function. If the PLAY and REC switches are depressed together in error, the playback takes priority and timer-based wake-up playback results. The "OFF" mode is induced even if all the switches are in the released position.*
- *If the cassette holder is closed about 3 to 7 seconds after the timer has started operating (playback or recording) with the holder still open, the deck is set to the playback or recording mode as soon as the holder is closed and not before.*

"DROPPING-OFF-TO-SLEEP" FUNCTION

This deck comes with an auto-stop mechanism and so when you are using it with a timer featuring a sleep function, you can drop off to sleep while you listen to your favorite music.

NOTE:
In some country, timer is not available due to safety regulation or any other reasons.

SPECIFICATIONS

Systems ..... Compact cassette, 2-channel stereo
Motor ..... DC servo motor x 1 (For driving the capstan)
DC high-torque motor x 1 (For driving the reel)
Heads ..... "Sendust" recording/playback head x 1
Erasing head x 2
Fast Winding Time ..... Approximately 90 seconds (C-60 tape)
Wow and Flutter ..... No more than 0.045% (WRMS)
Frequency Response —20dB recording:
Normal, LH tapes ..... 20 to 15,000 Hz
(25 to 14,000 Hz ±3 dB)
Chromium dioxide tape ..... 20 to 17,000 Hz
(25 to 16,000 Hz ±3 dB)
(0 dB recording; 25 to 8,000 Hz)
Metal tape ..... 20 to 19,000 Hz
(25 to 18,000 Hz ±3 dB)
(0 dB recording; 25 to 13,000 Hz)
Signal-to-Noise Ratio
Dolby NR OFF ..... More than 59 dB
Dolby NR ON ..... More than 69 dB (over 5 kHz)
Harmonic Distortion ..... No more than 1.0% (0 dB)
Input (Sensitivity/Maximum allowable input/Impedance)
MIC (L, R) ..... 0.3 mV/100 mV/10 kΩ, 6 mm diam. jack
(Reference MIC impedance; 250 Ω to 10 kΩ)
LINE (INPUT) x 2 ..... 50 mV/20 V/100 kΩ, Pin jack
Output (Reference level/Maximum level/Load impedance)
LINE (OUTPUT) x 2 ..... 450 mV/640 mV/50 kΩ, Pin jack
Headphones ..... 60 mV/85 mV/8 Ω, 6 mm diam. jack

Subfunctions

- Auto reverse, auto repeat functions
- Random access music select system
- PMS system
- REC muting switch (Auto space pause)
- Remote control
- Dolby NR system (ON/OFF) with LED indicator lamp
- Stand-by mechanism with unattended recording
- 3 position tape selector (NORM/CrO_2/METAL)
- Full automatic stop mechanism
- Memory stop function
- 2 color digital level meter
- 4 digit digital tape counter
- IC-based logic control
- Output level control
- Cassette compartment illumination

Miscellaneous

Power Requirements ..... AC 120 V/220 V/240 V (switchable) 50/60 Hz
Power Consumption ..... 53 watts
Dimensions ..... 420 (W) x 130 (H) x 365.5 (D) mm
16-9/16 (W) x 5-1/8 (H) x 14 - 3/8 (D) in.
Weight (without package) ..... 9.9 kg (21 lb 13 oz)

Furnished Parts

Remote control unit 1
Connection cord with pin plugs 2
Fuse ..... 1 (1.5 A or 800 mA)
Operating instructions 1

NOTE:
Specifications and the design subject to possible modifications without notice due to improvements.

NOTE:

1. Reference Tapes: Normal & LH: DIN 45513/BLATT6 or equiv.
CrO_2 DIN 45513/BLATT7 (CrO_2) or equiv.
2. Rerefence Recording Level: Meter 0 dB indicating level (160 nwb/m magnetic level = Philips cassette reference level)
3. Reference Signal: 333 Hz
4. Wow & Flutter: • JIS [3 kHz, with acoustic compensation (weighted), rms value] DIN [3,150 Hz, with acoustic compensation (weighted) PEAK value]; DIN 45507
5. Frequency Response: • Measured at −20 dB level, DOLBY NR OFF, level deviation is ±6 dB without indication.
6. Signal to Noise Ratio: • Measured at the third harmonic distortion 3% level, weighted (DIN 45513/BLATT7).
7. Sensitivity: Input level (mV) required for reference recording level with input (REC) controls set to maximum.
8. Maximum Allowable Input: While decreasing settings of input (REC) level controls and increasing level at input jacks, this is the maximum input level (mV) at the point where recording amplifier output waveform becomes clipped.
9. Reference Output Level: Playback output level when meter indicates 0 dB.
10. Maximum Output Level: Playback output level with respect to reference recording level when output (PLAY) level control is set to maximum.
11. This model doesn't employ a recording/playback connector (DIN-type).

CLEANING THE FRONT PANEL AND CASSETTE HOLDER

Clean off dust and grease on the front panel and cassette holder with a soft cloth. If badly stained, dip a soft cloth into some diluted neutral detergent to wipe away the dirt; then wipe with a dry cloth. Never use thinners, benzene or alcohol since they will discolor the panel surfaces.

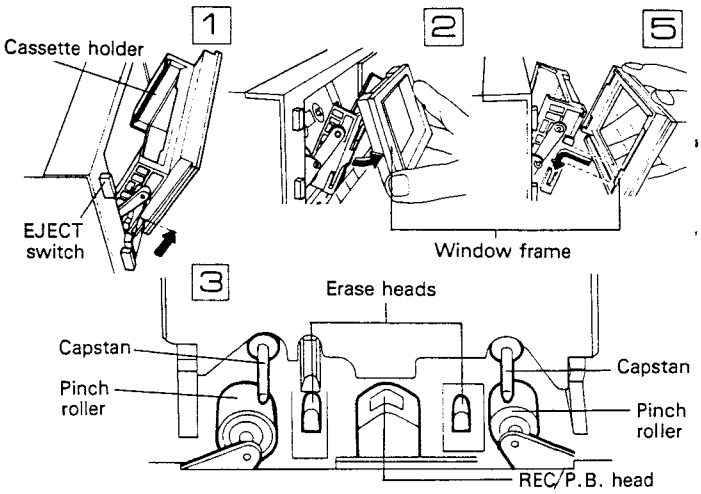
MAINTENANCE

Cleaning the heads

The heads, capstan and pinch roller become dirty quite easily. In particular, if the heads are dirty, the high frequency range response and the stereo balance are impaired, resulting in a change in the sound quality for the worse. To prevent this, dip a cleaning swab available from your audio dealer or a soft cloth into cleaning fluid or absolute alcohol regularly and clean off the dirt.

1. Depress the EJECT switch and open the cassette holder.
2. Lift up the cassette holder's window frame and pull it toward you to remove it.
3. Clean the Erase and REC/P.B. head.
4. Depress the PLAY ▶ switch with the holder frame open. This will set the capstan rotating. Set the DIRECTION switch and clean the rotating parts gently.
5. Re-attach the cassette holder's window frame by following the steps under 2 in reverse.

NOTE:
Allow the cleaning fluid to dry after cleaning (it takes about 2 to 3 minutes) before loading a tape.



DEMAGNETIZING THE HEADS

The recording head becomes magnetized when you use the tape deck for a prolonged period of time. This results in noise being generated and the treble dropping off during recording and playback. Demagnetize the recording head regularly with a head eraser which is sold by your audio dealer. For details, refer to the head eraser's instructions booklet.

NOTE:
Do not bring screwdrivers or other metal objects or magnets near the heads.

TROUBLESHOOTING

In event of suspected malfunction, check the unit according to the following table and confirm proper operation of other connected equipment.
If the difficulty cannot be corrected, turn off the power and contact a Pioneer authorized service center.

Basic checks

Has the equipment been connected properly? → Refer to page 7.

Is the stereo amplifier being operated properly? → Read through the amplifier's operating instructions again. Setting the tape monitor switch to ON results in tape play.

Are the heads dirty? → Refer to page 24.

Tape does not move even when PLAY ▶ switch is depressed.	Tape is fully wound on right or left reel.	Change the DIRECTION selector to "▷" or "◁".
	Cassette holder has not been closed properly.	Push the top of the holder back into position.
Deck is set to recording or playback mode when the power switch is set to ON.	REC or PLAY timer switch is depressed.	Depress the OFF timer switch.
Deck is not set to recording stand-by mode even when REC and ⏸ (Pause) switches are depressed together; no recording.	FUNCTION selector is set to PROGRAM, REPEAT or PMS position.	Set FUNCTION selector to "⊃" or "=" position.
	Tabs on cassette have been broken out.	Replace with an unrecorded tape.
Program has been recorded but playback sound is low or distorted.	Recording level is too low or too high.	Refer to page 11 and record again at the proper recording level.
	Correct tape selector has not been depressed.	Depress the selector corresponding to the type of tape.
No MEMORY-STOP operation.	FUNCTION selector is set to the PROGRAM, REPEAT or PMS position.	Set FUNCTION selector to "⊂⊃" or "=" position.

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